FIG.1 (PRIOR ART)

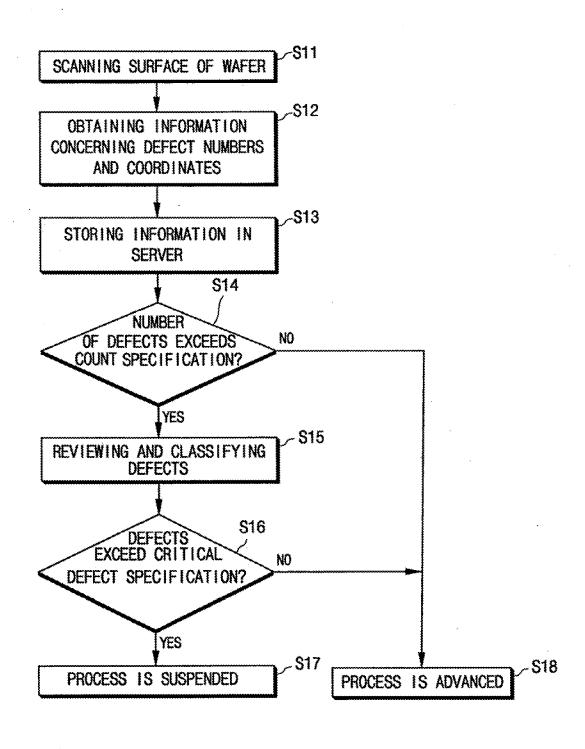


FIG.2A (PRIOR ART)

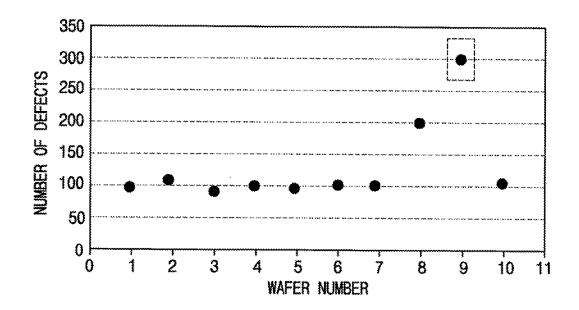
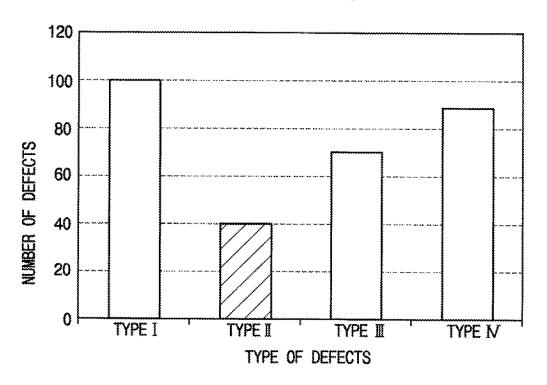


FIG.2B (PRIOR ART)



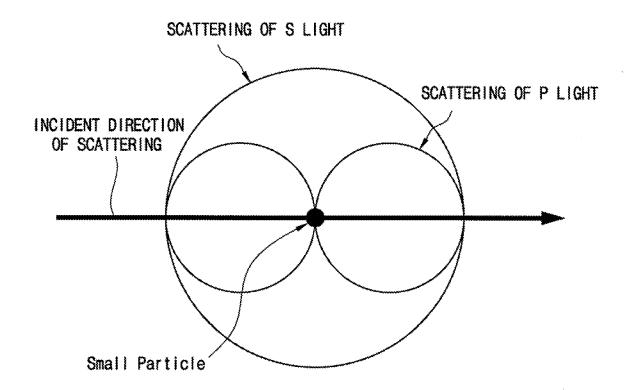


FIG.4

- Micro-Scratch
- Particle
- ▲ PSL
- × TRANSITION POINT
- TRANSITION LINE

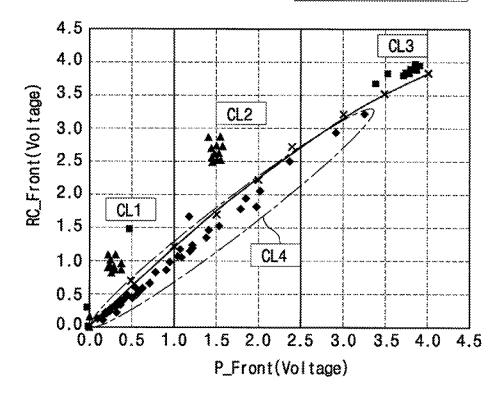


FIG. 5A

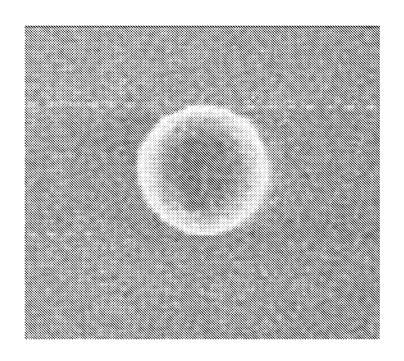


FIG. 5B

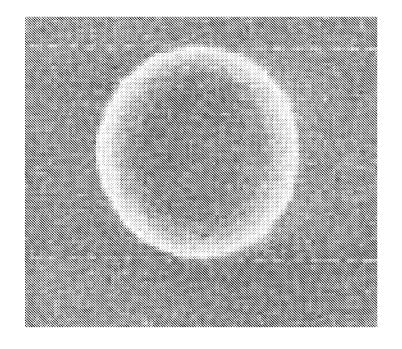


FIG. 5C

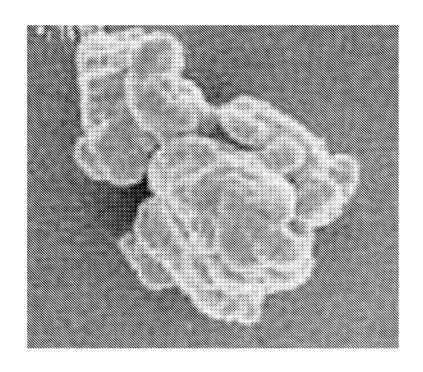


FIG. 5D

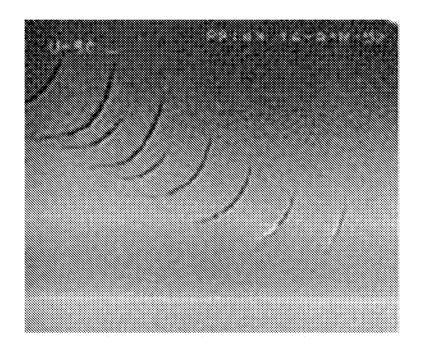


FIG. 5E

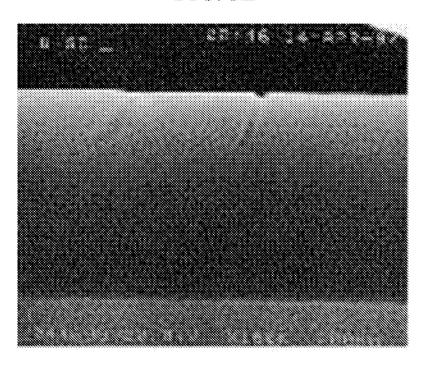
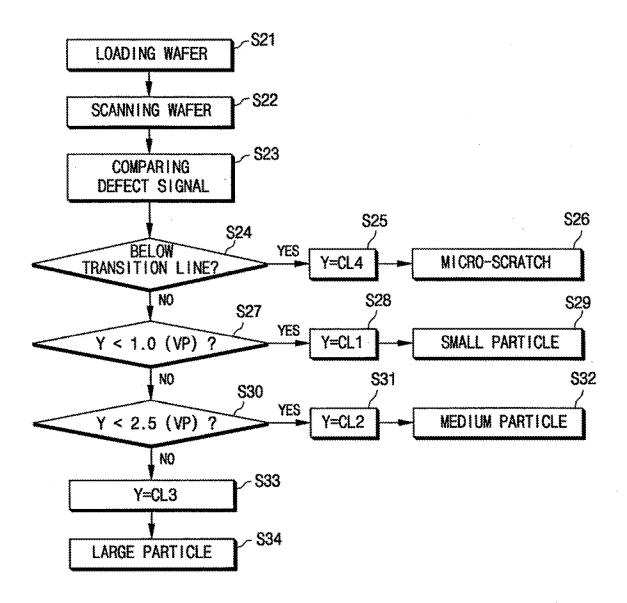


FIG.6



Y = PMT VOLTAGE VALUE DETECTED FROM C LIGHT

X = PMT VOLTAGE VALUE DETECTED FROM P LIGHT

VP = PMT VOLTAGE (P LIGHT)

TRANSITION LINE (a=-0.0856/ b=1.2981/ c=0.0096)

FIG.7A

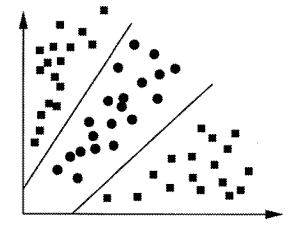


FIG.7B

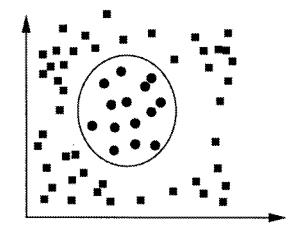


FIG.7C

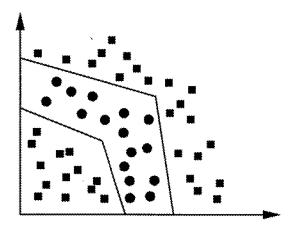


FIG.8A

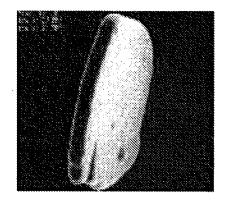


FIG.8B

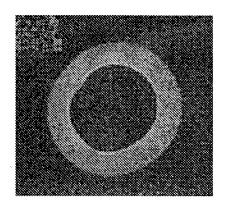


FIG.8C

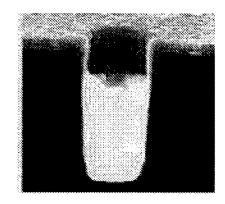


FIG.9

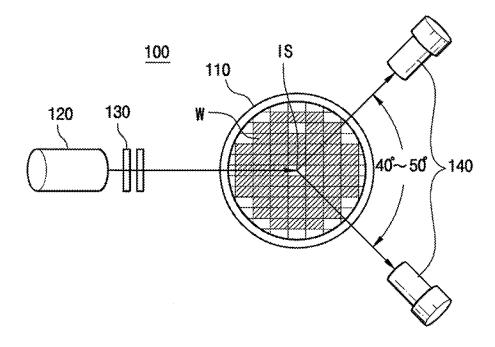


FIG.10

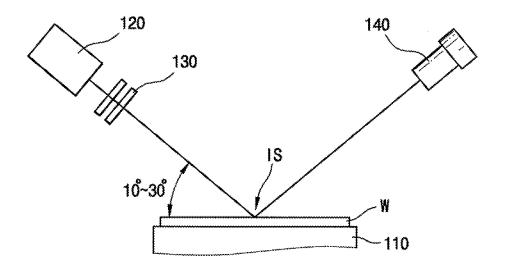


FIG.11

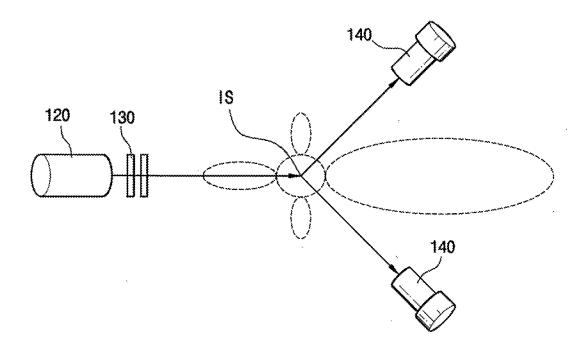


FIG.12

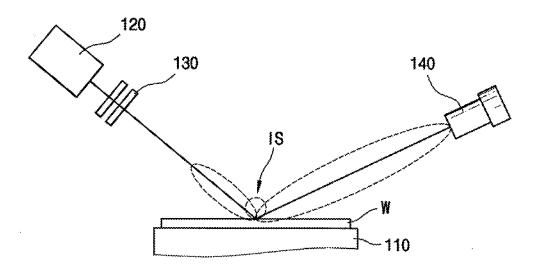


FIG. 13

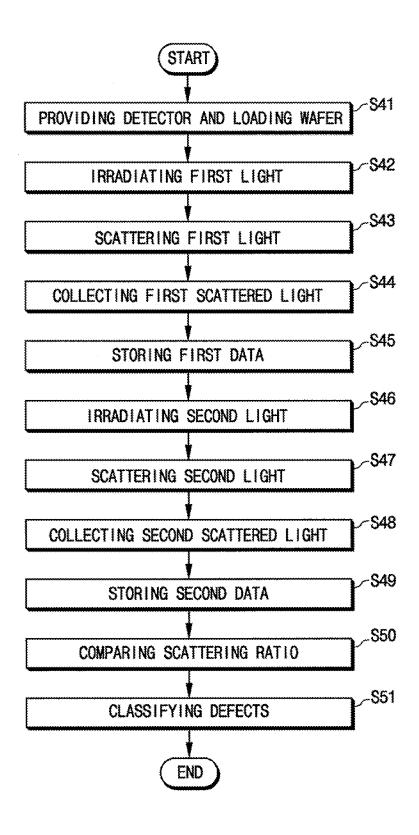
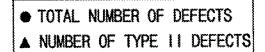
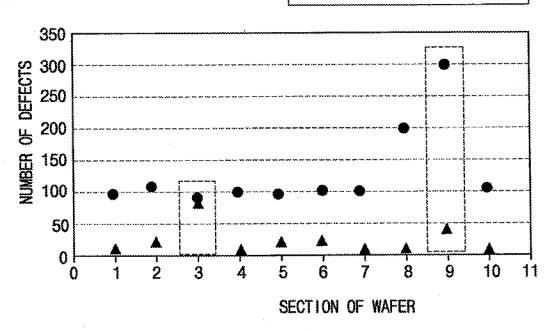


FIG.14





200

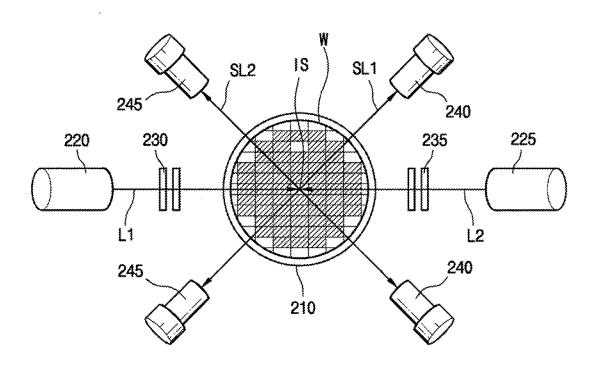


FIG. 16

